

## DESCRIPTION OF DUTIES

Agricultural Economist  
Albuquerque, New Mexico

Position No.:  
Date:  
Grade: GS-110-09/11  
FLSA: Nonexempt

### INTRODUCTION

This position is located on the State Resource Conservationist's Staff at the New Mexico State Office in Albuquerque, New Mexico. The incumbent is responsible for identifying economic data needs and systematically developing economic studies and analyses for the conservation technical assistance.

### MAJOR DUTIES

1. Works closely with physical scientists in making comprehensive investigations necessary to appraise floodwater, sediment, and erosion damages to agriculture lands and their products and to urban and rural developments on specified watersheds. Develops estimate of benefits that will accrue from the incremental reductions of these damages and determines average annual monetary benefits and costs associated with project installation.
2. Evaluates benefits to be gained through increasing net farm income by construction of irrigation and drainage facilities and other agricultural water management features.
3. Assembles and interprets data on crop budgets, yields, production patterns, commodity prices, conservation practices, water use and efficiency, socioeconomic projections, and related measures.
4. Incorporates assembled data into economic models designed to analyze long-term impacts of soil erosion, the economic feasibility of adopting soil conservation practices, the consequences of alternative cost sharing arrangements and the efficient use of resources in agricultural production.
5. Assists in interpreting the results of economic models and determining their implications for designing water resource plans that maximize net national economic benefits.
6. Assists project staff leader and other staff members in assessing the magnitude of identified problems within a project area and formulating a feasible, incrementally sound solution to these problems as applicable under PL-566 or RC&D programs.
7. Assists in preparation of plans of operation, job schedules, and other operational documents as are necessary for the efficient organization of his own work and effective coordination with the work of other staff members.
8. Assists in scoping the intensity of studies to be commensurate with various phases of planning.

9. Incumbent helps to define and locate economic problems; works with other staff members in formulating alternative solutions, and for project work, determines that alternative which maximizes net benefits.
10. Assists in making allocations of costs and computes cost-sharing between Federal and Non-Federal sources.
11. Prepares narratives, tables, and other related economic data for inclusion in watershed work plans and EIS's, as requested or assigned.
12. Performs revisions of watershed work plans as required by changes in interest rates and structural measure installation costs and benefits.
13. Participates in presenting data at public meetings.
14. Maintains technical proficiency by participating in professional society activities and through regular contact with economists in the state land grant institutions and in the cooperative extension service.

#### EVALUATION FACTORS

##### I. Knowledge Required by the Position

Knowledge and skills to assist with technical studies and analyses pertaining to the economics of water resource planning and development.

- Professional knowledge of the principles of microeconomics, including resource economics, agricultural production, farm management, regional economic development, and private and public investment criteria.
- Skill in collecting, organizing, and interpreting data information.
- Skill in applying established statistical methods.
- Skill in preparing oral and written preliminary reports based on completed studies.
- To perform the duties of this position, the incumbent must serve as an incidental motor vehicle operator. This requires the operation of a motor vehicle on both public and private roads during daylight hours and occasionally after dark. A valid state driver's license is required.



## 2. Supervisory Controls

The employee is supervised by the State Resource Conservationist. Supervisor assigns work and establishes priorities and schedules for completing work. Incumbent carries out the assigned work according to established principles of economic and statistical analysis and within priorities and general guidelines established by supervisor. Supervisor is available for periodic consultation regarding problem areas, conflicts, and evaluation of progress. Economists from the West NTC ESSE Staff are available for assistance in directing and planning economic studies. Work is reviewed by the supervisor and ultimately by senior economists as requested for compliance with study objectives and technical and policy standards.

## 3. Guidelines

Guidelines include standard economic and statistical procedures for evaluating data and established government-wide and agency procedures and policies for conducting soil and water resource evaluations.

Incumbent uses professional judgment in handling minor problems related to inadequate data and project benefits and costs. Incumbent confers with supervisor and with WNTC economists on major analytical problems and policy issues.

## 4. Complexity

Assignments often involve different but conventional methods and require the analyst to select an appropriate course of action from a variety of possible alternatives. The analyst typically: (1) utilizes statistical methods to manipulate and evaluate the adequacy of data and information for planning; (2) utilizes economic principles to evaluate conservation and farm management practices, legislation and policies affecting the use and conservation of soil and water resources in agricultural activities; and (3) utilizes economic principles and established guidelines to determine and review the benefits and costs of alternative soil and water management plans.

The employee must consider the kinds of data needed for evaluating economic and financial feasibility of alternative plans. The employee must recognize when procedures and data are inadequate to provide reliable measures of benefits, costs, and economic feasibility of proposed actions.

Within the State of New Mexico, there is considerable variation in soil and water conservation problems and the quantity and quality of data available. Furthermore, the principles and guidelines for evaluating project benefits and costs are complex. Therefore, the incumbent must exercise sound professional judgment over a broad spectrum of problems and analytical settings.



## 5. Scope and Effect

The work involves: (1) conducting economic investigations; (2) assisting in planning and formulating water resource projects; (3) analyzing the economic implications of various soil and water conservation practices; and, (4) conducting technical reviews of data and procedures used to compare alternative soil and water conservation plans for a specific river basis or watershed.

The purpose of the work is: (1) to provide economic information needed by field office employees to assist landusers in making informed conservation decisions; and, (2) to contribute to the timely completion of project plans prepared by the New Mexico staff.

## 6. Personal Contacts

Primary contacts are with technical personnel involved in soil and water conservation planning in the state and district offices and with technical specialists involved in planning and evaluating water resource development projects. Secondary contacts are with farmers, landusers, and other potential recipients of SCS services.

## 7. Purpose of Contacts

Primary contacts are made for the purpose of receiving assignments and for reviewing work progress. Secondary contacts are made to enhance understanding of problems and concerns, to help resolve difficulties with data interpretation and economic procedures, and to ascertain progress on approved projects and activities.

## 8. Physical Demands

The work is mostly sedentary; however, some walking is required during onsite visits.

## 9. Work Environment

The work is performed in an office setting except for that performed during onsite visits.



## DESCRIPTION OF DUTIES

Agricultural Economist  
Water Resources Planning Staff  
Portland, Oregon

Position No.: OR3341  
Date: 07/31/89  
Grade: GS-0110-11  
FLSA: Exempt

### .. INTRODUCTION

This position is located in the state office in Portland, Oregon, on the state water resources planning staff. The incumbent is responsible for identifying economic data needs and systematically developing economic studies and analyses for assigned River Basin Studies, Watershed Plans, RC&D Measure Plans, and other group and project planning on hydrologic units.

### B. DUTIES

1. Conducts economic evaluations and economic efforts in pre- and post-authorization studies and development of project plans and environmental impact statements, including revisions and supplements. These evaluations include assessments of benefits which will accrue as a result of the installation of flood prevention, agricultural water management, fish and wildlife, recreation, and other measures.
2. As assigned, conducts reviews and participates in Service, interagency, or public meetings as requested, and presents economic information on land and water resource projects.
3. Computes cost allocations and cost-sharing data.
4. Provides interpretations of economic portions of principles and standards, Water Resources Council manual, memorandums and bulletins.
5. Responsible for the technical adequacy of the economic investigations and analyses of land and water resource plans submitted to the WNTC for final review and concurrence.
6. Prepares technically accurate documentation files that support the economic decisions used in the evaluation of alternative solutions to land and water resource problems.
7. Assists staff leader and other team members in assessing the magnitude of identified problems within a project area and formulating a feasible incrementally sound solution to these problems as applicable under PL-566, RC&D, or other programs.
8. Prepares narrative material dealing with economic data to be included in watershed plans, I&A Reports, RC&D Measure Plans, Natural Resource Plans, and other backup supporting documentation.





EVALUATION FACTORS

Knowledge Required by the Position

Knowledge and skills to perform technical reviews, studies, and analyses pertaining to the economics of land and water resource planning and development, soil and water conservation planning, and river basin, RC&D, and area resources planning include:

- Professional knowledge of the principles of microeconomics, including resource economics, agricultural production, farm management, regional economic development, and private and public investment criteria.
- Skill in collecting, organizing, and interpreting data information.
- Skill in applying established statistical methods.
- Skill in preparing oral and written preliminary reports based on completed studies.
- To perform the duties of this position, the incumbent must serve as an incidental motor vehicle operator. This requires the operation of a motor vehicle on both public and private roads during daylight hours and occasionally after dark. A valid state drivers license is required.

2. Supervisory Controls

The employee is supervised by the Water Resources Planning Specialist. Supervisor assigns work and establishes priorities and schedules for completing work. Incumbent carries out the assigned work according to established principles of economic and statistical analysis and within priorities and general guidelines. Supervisor is available for periodic consultation regarding problem areas, conflicts, and evaluation of progress. Work is reviewed by the supervisor for compliance with study objectives and technical and policy standards.

3. Guidelines

Guidelines include standard economic and statistical procedures for evaluating data and established government-wide and agency procedures and policies for conducting soil, land, and water resource evaluations.

Incumbent uses professional judgment in handling routine problems related to inadequate data and project/program benefits and costs. Incumbent confers with supervisor on major analytical problems and policy issues.



## Complexity

The incumbent is responsible for the technical adequacy of the economic phase of all River Basin Studies, Watershed Plans, RC&D Measure Plans, and other group and project planning on hydrologic units. A variety of studies are conducted simultaneously on several projects that entail the expenditure of several million dollars, in federal, state, and local funds. A substantial knowledge of economic factors is needed to insure quality projects that are cost effective. Recommendations and studies affect not only participation in projects, but cost-sharing to be provided by federal funds.

Projects involve a variety of both structural and non-structural measures included but not limited to floodplain zoning and management, critical land treatment, debris basins, channels and single purpose and multi-purpose structures. Cost estimates of the installation of measures and the effects on agriculture require detailed investigations, accurate interpretations of data, and preparation of final reports. The incumbent must evaluate significant economic factors, solve complex problems and economic analyses require a broad knowledge of agricultural resources which vary from small subsistence enterprises to highly intensified irrigated areas.

## 5. Scope and Effect

The work involves: (1) conducting economic investigations and planning and formulating land and water resource projects; (2) technical reviews of data and procedures used to compare alternative soil and water conservation plans for a specific hydrologic unit; and (3) analyzing the economic implications of various soil and water conservation practices.

The purpose of the work is to contribute to timely completion of project plans prepared by the Portland Planning Staff, technical reviews of water projects proposed by field level planning staffs, and of economic studies of soil and water conservation issues and policies.

## 6. Personal Contacts

The incumbent works closely with SCS personnel of various disciplines, employees of other agencies, and public groups in developing economic evaluations. Factual presentations are made at staff and public meetings.

## 7. Purpose of Contacts

Contacts are made for the purpose of receiving assignments and for reviewing work progress, to enhance understanding of problems and concerns, to help resolve difficulties with data interpretation and economic procedures, and to ascertain progress on approved projects.



8.

Physical Demands

The work is mostly sedentary; however, some walking is required during onsite visits.

9.

Work Environment

The work is performed in an office setting except for that performed during onsite visits.



## DESCRIPTION OF DUTIES

Agricultural Economist  
Water Resources Planning Staff  
Portland, Oregon

Position No.: OR3341  
Date: 11/21/91  
Grade: GS-0110-12  
FLSA: Exempt

### A. INTRODUCTION

This position is located on the Water Resources Planning Staff in the state office at Portland, Oregon. The incumbent provides technical leadership for all phases of economic activities related to all programs in Oregon.

### B. PRINCIPAL DUTIES

1. Collects and analyzes economic data and information to contribute to and support management decisions in the identification of critical resource problems, the direction of the agency's program activities and assistance to conservation districts in long-range planning.
2. Provides leadership and coordinates activities within the state for integrating application of economic principles and evaluation techniques into interdisciplinary conservation planning activities as prescribed in the National Conservation Planning Manual and the National Watersheds Manual.
3. Conducts economic evaluations in pre- and post-authorization studies and development of project plans and environmental impact statements, including revisions and supplements. These evaluations include assessments of benefits which will accrue as a result of the installation of flood prevention, water quality, agricultural water management, fish and wildlife, recreation, and other measures.
4. Conducts reviews and participates in Service, interagency, or public meetings as requested, and presents economic information on land and water resource projects. Prepares narrative material dealing with economic data.
5. Develops and maintains economic tools, including Field Office Technical Guide Sections, Technical Notes, and Economics of Conservation Handbook.





other group and project planning on hydrologic units. A variety of studies are conducted simultaneously on several projects that entail the expenditure of several million dollars in federal, state, and local funds. A substantial knowledge of economic factors is needed to insure quality projects that are cost effective. Recommendations and studies affect not only participation in projects, but cost-sharing to be provided by federal funds.

The incumbent is responsible for providing economic assistance that meets the specific needs of farmers, ranchers, and landowners, in addition to promoting sound soil and water conservation practices. The State of Oregon includes 15 major soil associations and wide variations in topography and climate. The wide range of soils, as well as the large number of crops grown in the state require many special agronomic treatments for vegetative cover and economic production of crops and pastures.

The analysis of unusual situations require creativity, innovation and an interdisciplinary approach in developing alternative solutions to resource problems. This requires incorporating proven recommendations of research and experience to meet the needs of an operating program of soil and water resource conservation and development, and at the same time, meeting the production needs of the land users.

#### 5. Scope and Effect

The work involves: (1) conducting economic investigations and planning and formulating land and water resource projects; (2) technical reviews of data and procedures used to compare alternative soil and water conservation plans for a specific hydrologic unit; and (3) analyzing the economic implications of various soil and water conservation practices.

This position develops and maintains economic tools, such as material for the FOTG, Technical Notes, and additions to the Economics of Conservation Handbook.

Evaluates and promotes economic activities related to Resource Management Systems in conjunction with other staff specialists.

Develops training materials and provides training and economics assistance to other specialists and field office personnel in using economic data, tools and evaluation techniques.



6. Responsible for the technical adequacy of the economic investigations and analyses of land and water resource plans submitted to the WNTC for final review and concurrence.
7. Analyzes training needs, develops training materials and provides training and follow-up assistance to other discipline specialists and all field office personnel in using available economic data, tools and evaluation techniques.
8. Establishes avenues of communications and maintains working relationships with other federal and state agencies, private groups, and others engaged in or interested in natural resource activities.

#### EVALUATION FACTORS

##### 1. Knowledge Required by the Position

Knowledge and ability to independently perform a diversity of economic analyses in innovative and unprecedented areas to support land and water resource planning statewide. These include:

- Leadership ability in order to direct a statewide economics program and work within an interdisciplinary group, seeing the broad picture and designing a strategy to meet the needs of the resources.
- Knowledge and ability to analyze resource data collected by incumbent or others to determine the monetary and non-monetary effects of resource management systems. Evaluations will be used to compare the values of overall benefits produced with the cost incurred.
- Professional knowledge of the principles of microeconomics and statistical methods, including resource economics, agricultural production, farm management, regional economic development, and private and public investment criteria.
- Knowledge and ability to develop oral and written state-of-the-art economics-related materials in order to provide field personnel with technical guides, technical notes, manuals, etc., that are useful and credible. Understands soil, water, animal, and plant relationships under both irrigated and nonirrigated conditions.
- Skill in developing close working relationships with other agencies, universities, groups, and co-workers in



order to bring about cooperative efforts in research, training, and technology transfer needed to successfully carry out conservation. Must be able to relate and communicate with SCS personnel at state, area, and field levels in order to provide assistance and training.

- To perform the duties of this position, the incumbent must serve as an incidental motor vehicle operator. This requires the operation of a motor vehicle on both public and private roads during daylight hours and occasionally after dark. A valid state driver's license is required.

## 2. Supervisory Controls

The incumbent of this position is under the general supervision of the Assistant State Conservationist. This supervision consists generally of approval of work plans and goals, and review of operations for conformance to state and national policies. Within this policy framework, technical decisions and recommendations of the incumbent are generally accepted. Additional technical guidance is received from the Economics Staff, West Technical Service Center.

The incumbent is independently responsible through direction by the supervisor for all technical phases of economics work in the state. Matters of policy or particularly complex problems are referred to the supervisor for assistance. Requests for the incumbent's services are directed to the Assistant State Conservationist.

## 3. Guidelines

Guidelines are broadly stated in agency regulations, policy statements, and in Federal statutes. Such guidelines are provided in the National Economics Handbook Title 200, National Conservation Planning Manual Title 180, National Handbook of Conservation Practices Title 450, General Manual titles 180, 190, 230, 260, 300, 430 and 450. Many of the problems encountered are highly complex, subject to interpretation and requires study to obtain the definitive and authoritative information available. The incumbent must exercise a high degree of creativity in developing new methods and techniques which may influence agency standards and methodology.

## 4. Complexity

The incumbent furnishes economics guidance to all phases of SCS soil and water conservation programs on crop, pasture, hay, orchard, range, wood, and non-agricultural lands. Primary responsibility is for economic analyses on all River Basin Studies, Watershed Plans, RC&D Measure Plans, and



6. Personal Contacts

The incumbent works with SCS personnel at field, area, state, and regional levels, universities, other agencies, and groups to enhance understanding of problems and concerns, to help resolve difficulties with data interpretation and economic procedures, and to ascertain progress on approved projects.

7. Purpose of Contacts

Contacts are primarily to facilitate the cooperative accomplishment of a coordinated soil and water conservation program through the local soil and water conservation districts.

8. Physical Demands

The work occasionally requires physical exertion. This is usually walking on a variety of terrain under various weather conditions. Long distance driving is required and occasionally during adverse weather conditions.

9. Work Environment

Most of the work is performed in an office setting. Ten percent of the time is spent traveling and in rural settings involving exposure to operating agricultural equipment, agricultural chemicals, livestock, adverse weather conditions, and unimproved roads.

Civil Rights Responsibilities

Provides leadership and guidance in the design, development, and maintenance of administrative procedures to assure that delivery of SCS programs and services are carried out without regard to race, color, national origin, religion, sex, age, or handicap. Reviews the implementation of civil rights policies to determine that they are translated into appropriate actions consistent with annual plans of operation in all units under their supervision, as well as by recipients.